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Recollections of Japan.

Recollections of Japan; comprising a particular Account of the Religion, Language, Government, Laws and Manners of the People; with Observations on the Geography, Climate, Population, and Productions of the Country; by Captain GOLOWNIN, of the Russian Navy.—London 1819.

Amidst a variety of striking peculiarities by which the inhabitants of the eastern are distinguished from those of the western hemisphere, the most remarkable is the fixity, among the former, of their national laws, customs, and manners. In Europe the progression of knowledge has, for nearly four centuries, been comparatively slow, but uninterrupted. To the improvements and discoveries of one age, have been added the researches and inventions of another; whilst by the general liberty of commerce, the acquisitions of one nation, in the various branches of science, have been communicated to its neighbour; and thus a general fund of knowledge has been accumulated, which is continually increasing, and must necessarily augment from the innumerable contributions it receives. It is, indeed, a stream fed by countless and inexhaustible rills.—In Asia, on the contrary, the sun of science had shed its morning beams upon the southern nations many ages before it had dawned upon the gross obscurity of the west; but this glorious luminary became, soon after its rising, stationary in the oriental hemisphere, and has never yet approached the meridian. Mankind in those remote regions were civilized at a very early period, and made, as it were simultaneously and *per saltum*, important and rapid strides in the acquisition of the useful arts, and in many of the liberal sciences, but at that point they halted, and have remained, for upwards of a thousand years, nearly in the same position. Doubtless, this suspension of the march of the human faculties, towards perfectibility, is chiefly to be attributed to the despotism of the different governments of the east, the slender information possessed by their subjects in the arts of navigation, the inveteracy of their prejudices, and above all, the intolerant and jealous spirit, which marks, for example, the transactions of the natives of China and Japan, with strangers. Until their shackles and their prepossessions are removed, the oriental nations will never attain to the full maturity of the intellectual stature of Europeans.

We have been led, into these desultory remarks from the consideration of the interesting volume before us: their truth will be sufficiently demonstrated in the sequel. Captain Golownin's "Narrative of his Captivity in Japan," a valuable and important Work, contained a great variety of curious details respecting the Japanese nation. The scattered rays of light which were there effused upon the institutions, political economy, and character of that singular people, are here brought into one focus.

The "Recollections" comprise an epitome of the geographical situation, climate, and extent of Japan—origin of the Japanese nation, religious customs, progress of civilization and language, laws and government of the empire, productions of the country, trade and commerce, population and military force; and, lastly an account of the people who pay tribute to the Japanese and their colonies. Our limits will not allow us to quote largely from our author, in his illustrations of these heads; but we shall endeavour to make our readers acquainted with the substance of his statements, adhering to the order observed in the volume itself, and citing such passages as are particularly explanatory of the subject treated on.

Geographical situation, climate, and extent of Japan.

Japan consists of one large island, entitled Nippon, many smaller ones, and the southern part of the peninsula of Sagaleen. It stretches from the 31st to nearly the 46th degree of north latitude, comprehending almost every variety of climate and production. The striking peculiarity of the former is its extreme severity in the winter, even in a very low latitude. Captain Golownin's account of this phenomenon, and of its causes, we shall give in his own words:—

'On a comparison of the geographical situation of the Japanese possessions, with that of the countries of the western hemisphere, under the same degrees of latitude, it might be imagined that the climate, the

change of the seasons, and the atmosphere, were alike in both; but such a conclusion would be very erroneous.* The difference of the two parts of the world, in this respect, is so striking, that it deserves more particular notice. I will take as an example Matsmai, where I lived two years. This town lies in the forty second degree of latitude, that is, on a parallel with Leghorn in Italy, Bilboa in Spain, and Toulon in France. In these places, the inhabitants hardly know what frost is; and never see any snow, except on the tops of high mountains: in Matsmai, on the contrary, the ponds and lakes freeze; the snow lies in the vallies and on the plains, from November till April, and falls, besides, in as great abundance as with us in St. Petersburg. Severe frosts are indeed uncommon; yet the cold is often fifteen degrees of Reaumur. In summer, the parts of Europe under the same latitude as Matsmai, enjoy, almost constantly, serene and warm weather; in Matsmai, on the other hand, the rain pours down in torrents, at least twice a week, the horizon is involved in dark clouds; violent winds blow, and the fog is scarcely ever dispersed. In the former oranges, lemons, figs, and other productions of the warm climates, thrive in the open air; in the latter, apples, pears, peaches and grapes, hardly attain their proper maturity,

I have not, it is true, been in Nippon, the principal island of the Japanese possessions; but I have heard from the Japanese, that in Yeddo, the capital city of the empire, in the thirty-sixth degree of latitude, snow often falls, in the winter nights, to the depth of an inch or more. It is true it melts immediately the next day; but if we consider that Yeddo is under the same latitude as Malaga, in Spain, we shall be convinced that the climate of the eastern hemisphere is much ruder than that of the western. The Japanese assured me, that on the Southern part of Sagaleen, in the forty-seventh degree of latitude, the ground is often thawed during the summer, only to a depth of a foot and a half. If we compare with this the climate of a place in Europe, whose latitude corresponds, for example, Lyons in France, how different are the results. That the accounts given by the Japanese are true, I cannot doubt; for we ourselves met with great fields of ice, so late as the month of May, off the Kurile Island of Raschau in latitude forty-seven degrees forty-five minutes. At this season no ice is to be seen with us in the Gulph of Finland, in sixty degrees north latitude; though the water there, from being so confined, has not the power to break the ice, which vanishes more in consequence of the effects of the rays of the sun. Off Japan, on the contrary, the waves of the ocean must break it up much sooner, if the sun acted with the same power.' p. 6.

Japan abounds with lofty mountains, has several volcanoes, one of prodigious elevation, and is particularly exposed to earthquakes.

Origin of the Japanese Nation.

It appears likely that the Japanese derive their origin from the Manchous, who inhabit the eastern coasts of Tartary to the northward of the great wall, and were, most probably, the progenitors of the Kurile nation: the superior ingenuity and probity of the Japanese sufficiently redeems them from the disgrace of a Chinese Extraction.

* Charlevoix states, that the Japanese are much prejudiced in favour of their own climate, and acknowledges that it must be very healthy, since the people are long lived, the women prolific, and diseases very uncommon. We know not what dependence to place upon Kempter's wonderful story of a village upon the side of a mountain, all the inhabitants of which were children, grand and great grand children of a single man then living; and all of them handsome, well made, polished, civil, and possessing the manners of people brought up at court.

It seems, however, that little reliance can be placed upon the extraordinary boasts respecting the Japanese climate; since the Jesuits confess, that the weather is very changeable; that the winter cold is intense; and the fall of snow prodigious; that the summer heats are intolerable; that it rains often, and at seasons; the heaviest rains being in June and July, which portion of the year the Japanese distinguish by the name of the water months; and that thunder and lightning are then extremely frequent. As a counterbalance to these inconveniences, the Jesuit writers whimsically throw into the opposite scale, the length of the winter, which they describe as giving the weather time to purify itself, whilst the rains *re-soften* it, and the various natural productions cause salutary exhalations; especially from the sulphur and the aromatic plants with which these islands abound.

'Among other things they related that they had a tradition, that, at a period of remote antiquity, the whole earth was covered with water, in which state it remained, during a countless series of years, without the Almighty Creator, whom the Japanese call *Tenku Sama* (Ruler of Heaven) having cast his eye upon it. At length Kami, his eldest son, obtained permission to put the earth in order and to people it. He therefore took an extremely long staff to sound the depth, which he found to be the least, exactly in the place where Japan now rises out of the sea. He threw earth from the bottom up in a heap, and treated the island of Nippon, furnished it with all the natural productions which still flourish there, divided himself into two beings, one male, and one female; and peopled the new country: when the other children of God saw their brother's work, they did the same in other parts of the globe, and though they succeeded in creating countries, ordering and peopling them, they, however, had not the skill which their elder brother possessed; and hence in their creation of countries and men they did not attain to the same perfection.* For this reason the Japanese are superior to all the other inhabitants of the earth, and the productions of Japan better than all others. Teske, who related to us this tradition from their ancient history, laughed, and said, that even to this day, most of his countrymen believed the silly fable, and many affirmed that a part of the staff which their first ancestor had employed to measure the depths of the ocean, still existed as an evergreen tree, in one of the highest mountains in the Island of Nippon.' p. 8.

Religion and Religious Customs.

Four different systems of religion prevail in Japan: first the adoration of immortal spirits, or children of the highest being, and the worship of saints. Temples are constructed to the honor of these divinities and saints; secondly, the religion of the Bramins derived from India.—The subjoined extract presents a most remarkable proof of the early introduction of orthodox Christianity into Japan, and of the corruption of its doctrines.

'The facts connected with this (the Bramin) religion, manifest in a most extraordinary degree the rapid diffusion of the knowledge, though corrupted, of the Christian religion to the eastward of Judea. About the year A. D. 55, the Chinese emperor Mimi, heard of a sect in India called the sect of Xaca, and he was so much pleased with their tenets, as to send special messengers thither, with orders to acquire a perfect knowledge of their forms and opinions. About the year A. D. 62, these messengers returning by way of Japan, found the tenets of Xaca already introduced there—a brief sketch of which will suffice to prove the fact in question. Some of these were, that there are future recompenses established for virtue, and punishments for vice; that good men after death are received into a place of happiness, where all desires are fulfilled; but the wicked are shut up in a place of torment; that Xaca is the Saviour of mankind; that he was born of a female in order that he might reveal man to the way of salvation, from whence he had previously seen that they had strayed; that he came to expiate the sins of the world, in order that after death, they might acquire a happy resurrection; and that the Godhead consists of three persons in unity—a coincidence in chronology and doctrine which strikes at the very root of those assertions of infidelity, that would look for the origin of the Christian gospel in the corrupted traditions of the East, supported by the unfounded assertions of anterior antiquity. It is a remarkable fact, that the followers of this religion worship an image with three heads and forty hands, as a symbol of a Trinity of persons in the Godhead, and of the universality of the divine operations. They believe, also, that whatever crimes may have been committed, the sinner may expect salvation if he dies invoking the Deity, whom they represent as having undergone a most severe penance, in order to wash away the sins of mankind. They also believe that this God is invisible, and of a nature quite distinct from the elements of matter; that he existed before the creation; that he had no beginning, and will have no end; that all things were created by him; that his essence is spread through the heavens, upon the earth and beyond it; that he is present every where; that he governs and preserves all things; that he is immovable, immaterial, and ought to be revered, as the inexhaustible source of all good.' p. 45.

Thirdly the Religion of Confucius, and fourthly, the adoration of the heavenly bodies.

'They consider the sun as the highest divinity, then follow the moon and stars. Almost every constellation forms a separate divinity; these divinities contend with each other, and make peace; form alliances by marriage, seek to outwit and to injure each other; in short, according to the belief of the Japanese, they have all human weaknesses, and live like men, only with the difference that they are immortal, and assume any shape they please. This religion gave origin to a sect who adore fire, and consider it as a divinity derived from the sun.' p. 47.

* Another statement says, "That at the beginning of the world, the first of Seven Celestial Spirits arranged the chaos, or confused mass of land and sea, when from the end of a rod, with which he performed it, there fell a muddy froth, which condensed, and formed the Islands of Japan."

The common people are remarkably superstitious, and those of superior rank and education are, for the most part, infidels and atheists. No persecution exists in Japan, but every one follows the religion he prefers without molestation. Christianity alone is prohibited by the severest laws. The Japanese have numerous monasteries for the devotees of each sex, which do not differ very materially from the ecclesiastical establishments of a similar nature in Catholic countries; their members professing celibacy, but living in incontinence; renouncing the world, but contriving to enjoy all its comforts and luxuries, and also in being useless drones and morbid excrescences upon the political body. The spiritual emperor Kin-Rey is the head of the ancient Japanese religion.

He not only confers the highest ecclesiastical dignities, but also bestows, on the superior officers of the state, the dignity or spiritual title of Kami, which the greatest men in the empire think it the highest honor to obtain. I have already had occasion to mention this dignity. The Kin-Rey is invisible to all classes of the people, except his own household, and the officers of the temporal emperor, who are often sent to him. Once a year, only, upon a great festival, he walks in a gallery which is open below, so that every body can approach and see his feet. He always wears silk cloaths, which from the very first preparation of the silk, are manufactured by the hands of pure virgins. His meals are brought to him each time in new vessels, which are then broken. This, say the Japanese, is done, because nobody is worthy to eat out of the same vessel after him; if any one ventured it, or did it by mistake, he would immediately die. He is never permitted to touch the earth, lest he should be defiled; wherefore his locomotion is performed on the shoulders of his courtiers. Even his hair, beard, and nails, are only cut when he is asleep. He is obliged to sit during the greatest part of the day upon his throne, with the crown upon his head, and immovable as a statue, which state of quiescence is considered not only as emblematic, but as productive of the tranquillity of the empire. If, however, he should move himself in the slightest degree, or turn towards any particular province, they imagine that war, famine, and desolation must instantly ensue. When this period of purgatory is over, he is permitted to rise, and the crown is left quietly to perform his sedentary functions. His head-dress and ornaments, as well as his habits, bear a great resemblance to the state costume of his Holiness the Pope, but as a counterbalance to his temporary state of quiescence, he is permitted to marry a dozen wives! He changes his dress every day; but very little to the emolument of his valet, or to the shop-keepers in the Japanese Monmouth Street, since it is believed that any person putting on his cast-off cloaths, would instantly be afflicted with a general bodily inflammation. Even his crockeryware of all sorts is broken after being once used; whilst the cups and saucers of his twelve helpmates join in the general crash. Note, page 67.

National Character, Civilization and Language.

This is a very copious and important head; and to do justice to its details, we should embody into this article almost all the author's statements. The following may be considered as a summary of the national character of the Japanese:—They are active, industrious, inquisitive, temperate, generous, honest, and compassionate capable of extraordinary enterprise, eminently polite and courteous; they possess a high, and even romantic sense of honour; and are universally learned, in proportion to their opportunities of acquiring information;—but they are, at the same time, deceitful, vindictive, and unchaste. The great and amiable qualities of the Japanese are exemplified by Captain Golownin in almost every page of his book.

'Their extreme politeness towards each other has been described and accounted for, by the earliest writers, who state, that all the riches of this powerful empire are in the hands of the princes and nobility, who make a great show of their wealth; their magnificence going to a greater extent than any thing known in Europe, or recorded in the history of the powerful monarchies of ancient times. All this is seen by the great mass of the people, without the slightest envy; and if it happens that any nobleman, or man of high rank, by an unhappy accident, or by incurring the prince's displeasure, should fall into indigence, still he is not less haughty, nor less respected than in his most brilliant fortunes! and into whatever misery or poverty a gentleman may be reduced, he never forms an alliance beneath his own rank.

The point of honour is also extremely lively in all ranks, and the lowest of the people would feel themselves hurt by any freedom of expression, even from a nobleman of the first rank; and believe themselves justified in manifesting their resentment. Thus every one is upon his guard, and all ranks respect each other.' p. 35.

The greatest stain in their national character is the dissoluteness of their manners.

'Among the vices of the Japanese, the most prevalent appears to be incontinence. Though the law does not allow them to take more than one wife, they have the right to keep concubines; and all opulent people make use of this right, even to excess. The bachelors are under the protection of the laws, and have their regulations, rules, and privileges

The owners of such houses are not considered infamous, and enjoy the same rights as merchants, who deal in a permitted commodity with the consent of the government; but the Japanese avoid being acquainted with them. The lovers of such places generally visit them from sunset to sun-rise. The music plays and the drum is beat. There were some such house near our abode, and I cannot remember that a single night passed without our hearing the drum; hence I conclude, that these places are never without visitors. The Japanese told us, that at Yeddo, the capital of the temporal emperor, there are numbers of the largest buildings of this kind, which are nothing inferior, in magnificence, to the palaces of princes. In one of the temples, dedicated to Venus, there are six hundred priestesses, and yet the porters are often obliged to refuse admittance to young worshippers of the goddess, because there is no vacancy. We were assured that the proprietors of these magnificent magazines, spare nothing to furnish them with the most beautiful merchandize, and this is very easily to be believed. On one of our walks in Matsmai, the interpreters, to gratify our curiosity, led us past such a house: half a dozen young creatures ran to the door to see us. I observed, that some of them were in the bloom of youth, and so handsome, that they would have done no discredit to a house of the same description in an European capital; but perhaps they appeared so to me only, because my eyes had been so long deprived of the sight of our fair country-women. p. 22.

The knowledge of the Japanese is extensive; every individual learns to read and write. In agriculture, the chase, the fisheries, the manufacture of silk and woollen goods, and of porcelain, varnished goods, and polishing of metals, they are not at all inferior to the Europeans. They are skilful cabinet-makers, and are thoroughly acquainted with the manufacture of all articles appertaining to domestic economy. They are but imperfectly versed in astronomy, and have only a slight knowledge of the mathematics, and the more abstruse sciences. In painting, architecture, sculpture, engraving, music, and poetry, they are described as very far inferior to the Europeans. They are novices in the art of war; and are entirely ignorant of the best method of constructing their vessels. The characters employed by the Japanese in writing, resemble those of the Chinese; that is, they are symbols. They write in a perpendicular line; and their language is extremely difficult to learn, nor will they instruct a stranger in it.

Government of the Empire, Laws and Customs.

The form of government is remarkably complicated. The supreme spiritual authority has been already mentioned, and the shadows of secular power are veiled in the spiritual emperor; who is, nevertheless, obliged to consult a council of five individuals, selected from the most eminent personages in the state. There is also an assembly which we should denominate a senate. Japan is divided into nearly two hundred principalities, each governed by its own hereditary prince, with absolute sway, except in those points which relate to the general administration of the Empire; but the Japanese laws, which emanate from the Emperor, are universally obeyed. There are also a numerous order of nobility, who alone are eligible for places of profit and distinction; the remaining classes are ecclesiastics, men of learning, including physicians, soldiers, merchants, mechanics, labourers, and slaves.

The nobility enjoy very important privileges in Japan. All the places in the second council or senate, all the important offices of the state, and the posts of governors in the imperial provinces, are filled up entirely from their body alone. If a war breaks out, the commanding generals are chosen from among the reigning princes of the nobility. Every noble family has a particular distinction, and the right to keep a train of honour, which is made use of by the eldest of the family. The nobility is also hereditary, and descends to the eldest son, or according to the will of the father, to the most worthy. If the father judges his legitimate unworthy of this dignity, he may adopt a son from another family; hence, a good-for-nothing nobleman is a rare phenomenon, which only the too great love of a father for an unworthy son can render possible. p. 85.

The Japanese are remarkably severe. Their capital punishments are ripping open the bowels and decapitation. The use of torture is at so authorized, but is rarely inflicted. In fact, the rigour of their statutes operates in the same manner as our penal code: they are, in most cases, evaded. Property, however, of every kind, is secured to its possessor by the laws of Japan. A husband has the power of putting the adulteress and her paramour to death, if surprised in the fact; so has a father with respect to the seducer of his daughter; they have also unlimited power over untoward children. The Japanese houses are not built of stone on account of the earthquakes; but commonly of wood, and very slight, to suit the warmth of the climate. The insides of their dwellings are fitted up in a singular style.

Many of their apartments are embellished with a painting of a divinity, or richly ornamented papers, on which are some favourite moral sentences of philosophers or poets; in some instances, they have grotesque caricatures of old Chinese, or birds, trees, or landscapes, painted upon screens; in most houses they have flower pots, filled with the most odoriferous flowers, according to the season; and in default of

them, with artificial representations of flowers, impregnated with odours; these together with performing pots of brass or copper, in the shape of lions, cranes and other rare animals, hangings of silk net, vessels of porcelain, and ranged in the best order, all produce the most pleasing effect.

Their love of ornament is, indeed, carried to an extreme, in numerous instances; at their feasts, it is often superfluous, and their ceremonies are never at an end. Their attendants are most numerous; yet a word is never heard spoken, nor does there ever arise the slightest confusion; but the plates are ornamented with ribbons; and if a partridge, or any other bird is served up, it is sure to have its body varnished, and its legs and feet gilded. Their feasts are always accompanied with music; but excess is unknown. Note to p. 113.

Their streets are extremely narrow. Their municipal regulations admirable; and might be advantageously adopted in Europe.

Charlevoix asserts, that the number of cities in Japan, in his time, amounted to thirteen thousand; almost all of which were populous. He describes them as being totally devoid of walls, with the streets generally running in straight lines, crossing each other at right angles; with gates which are all the way, and generally much ornamented; and with guards regularly mounted. The towns and villages, stated by Komper, are too numerous for belief—509,858, generally built along great roads, and well inhabited; principally by shopkeepers and artisans; these consist of double rows of houses, but are so extensive and close to each other, as scarcely to have marked limits.

Every street has a superintendent officer or *Ottoma*, who, like our constable of the night, preserves good order after sun-set; and is bound to obey the orders of superior magistrates. The *Ottomas* keep a register of all the residents in their peculiar streets, of all births, deaths, and marriages, of all who leave their homes for the purpose of travelling, or who change their residence into any other street. The profession or trade, condition in life, and religion of each individual, are also carefully recorded. When disputes arise, the *Ottoma* calls the parties before him, for the purpose of settling matters; but he has no power to enforce his recommendations, although he can punish slight crimes by imprisonment. Each *Ottoma* is elected by the inhabitants, by a majority of votes; a certain number of names being chosen and presented to the governors or mayors, for election or approval.

To each *Ottoma* there are three petty constables; besides which, like the old Saxon hundreds and tithings, all the inhabitant householders of each street, are divided into parties of five, which will sometimes include fifteen families, each under the inspection of a chief, who is not only responsible for their conduct in regard to enquiry, but actually shares with them the chastisement of their crimes or faults. In each street there is a police clerk; who writes out, and publishes the orders of the *Ottoma*, and preserves the records. The office of treasurer is held by each inhabitant in turn for a year; and there is a messenger who posts up orders, collects taxes, brings information, &c. &c. p. 118.

The dresses of the Japanese are of a very peculiar description; they consist generally of a number of loose garments with very large sleeves, put over each other, and fastened round the waist with a girdle. The women are described as attending even more than the men to magnificence in their apparel; one custom respecting which must be, in no common degree, inconvenient. Besides a profusion of shorter dresses, they wear a robe with a train of several feet in length; and their vests or corsets sometimes amount to nearly a hundred! Fortunately, however, they are of so slight a construction, that, according to Charlevoix; half of them may be crammed into a pocket.

The female head-dress resembles the old fashioned head-dresses of our ladies; with this exception only, that the Japanese women do not powder them; but put in the hair many flowers and ribbons, and besides some gold or silver bodkins, which resemble our tuning keys. Of children who are not yet five years old, the hair is cut every year differently—in some of them a circle is left round the head, which is braided with riband; in others the hair is shaved from the crown of the head, and left only on the temples and in the neck, and braided with ribbons or artificial flowers. p. 123.

The Japanese do not wear any stockings, except in travelling: they call them *Kafan*; their shoes are made of straw, or slips of wood, but they last a very short time, being always of a very slight texture. People of fortune in Japan travel with equipages somewhat resembling our very old coaches, drawn either by horses or oxen; persons of inferior rank generally on horseback, or in litters. Our author, however, describes a procession which he witnessed, of the governor of Matsmai, on horseback, to a temple of thanksgiving he was accustomed to visit every spring.

The high priest, the priests and officers, who were obliged to be present, were gone before. He rode alone without ceremony; a small train attended him on foot. To the horses' bit there were fastened, in stead of the bridle, two light blue girdles, which two grooms held fast on each side of the horse's mouth; the two ends of these girdles were held by two other grooms, who went a little at a distance from the

others, so that these four men occupied almost the whole road. The tail of the horse was covered with a light blue silk bag. The governor, dressed in his usual clothes, in which we had often seen him, sat without his hat upon a magnificent saddle, and held his feet in wooden japanned stirrups, which resembled little boxes. The grooms who held the horse at the bit, continually cried, *Chai! chai!* that is, softly; however, they pushed on the horse, and made it leap and go quick; the governor therefore stooped and held fast the saddle with both hands. At a short distance before him went some soldiers in a row with two serjeants, and though nobody was in the way, they continually cried, "Make room! make room!" Behind the governor followed the armour-bearers, who carried all the insignia of his dignity in cases. This was to signify that the governor was *intogatto*.

The Japanese have erected mile-stones, or distance posts, on most of their high roads, which are planted with avenues of trees; and fountains, at intervals; their inns are commodious, but every traveller is obliged to leave the room he has occupied perfectly clean and neat, so that no person ever thinks of departing from an inn until he has seen his apartment put into proper order, well swept, and washed if necessary. The cleanliness of the Japanese, with regard to their habitations, is said even to surpass the Dutch. They have a great taste for theatrical amusements, and appear particularly fond of music and dancing; there is an instrument in use among them which resembles a recumbent harp, a kind of violin; and, besides this, various descriptions of flutes, and a drum.

The Japanese spoke of many other kinds of instruments which were in use among them; but they were not to be found in Matamai, and I could not comprehend of what description they were. Notwithstanding the cheerful character of the Japanese, their songs have something melancholy and plaintive; their motions in singing always corresponded with the words, the attitudes of the singer are therefore frequently, very ridiculous; they make horrid grimaces, distort their eyes, turn up the whites, then often put on a cheerful face, or laugh with one side of the face and cry with the other. During our stay in Chukolade there was a servant with us, who was said to be a great dancer; he had even danced on the stage, as they told us, and received much praise from the public. This virtuoso was curious to see a Russian dance, he was therefore obliged to exhibit before us, which he willingly did, particularly as he thereby gave our guards extraordinary pleasure. Two or three of them, boys of sixteen years of age, learned dancing of him, and imitated his grimaces with success. I often laughed when I looked at them with my friend, Mr. Moor, and remarked that this was probably the first time, that lessons in dancing were given in a prison. p. 141.

Among their amusements may be reckoned their pleasure-boats, or yachts, which are very expensive and magnificent, a game at draughts of their own invention, with four hundred pieces, and cards, to which they appear to be singularly addicted.

Production of the Country, Trade, and Commerce.

Japan is, perhaps, the richest country in the world. It produces in abundance, precious stones, gold, silver, copper, tin, lead, mercury, tea, tobacco, silk, cotton, salt, iron, coals, timber, rice, barley and almost every description of fruit and vegetables. It has few wild animals, but all the domestic ones. The Japanese carry on a vigorous home trade, chiefly by means of water transport; their foreign commerce is confined to the Peninsula of Corea, China, the islands in the Kurile Archipelago, and the Dutch. The commercial communication with Holland and China is limited to the port of Nangasaky. Formerly the foreign trade of the Japanese was much more extensive and Europeans were then freely admitted into their ports and the interior of the country; but these advantages were forfeited through the dangerous intrigues and disgraceful conduct of the Jesuits, which provoked Zego Sama, then emperor, to persecute Christianity and expel all Europeans. The revenues of the empire are chiefly collected in produce. Six tenths of the fruits of the land are paid by the tenant to the proprietor; the Japanese have silver, gold, and copper coins, and have invented a paper currency!

Population and Military Force.

The population of Japan, its reference to its extent, is prodigious; the metropolis Yeddo, alone, is said to contain ten millions of inhabitants.

To give us an idea of the population of the country, the literati and the interpreter, Teske shewed a map of Japan, which was drawn upon a very large long sheet of paper. On this map were marked not only all the towns, but also the villages, so that the paper was hardly to be seen for the names written. They shewed on the road from Mismal to Yeddo, a place which they call a desert (*Steppe*) because a neighbouring river, after heavy rains, overflows this spot, and renders it unfit for cultivation. This desert is so immense, that the litter bearers, who carry travellers, when they set out in the morning meet with no village till noon, and when they have rested, have to travel again through the desert till sun-set. According to their way of travelling, in litters, they must pass through two barren places, each of which may be above 18 wersts; and this the Japanese term a desert. They also shewed us a plan of the capital; and told us, that a man could not walk in one

day from one end of it to the other. When we questioned the Japanese respecting its population, they affirmed that it contained upwards of ten millions of inhabitants, and were very angry when we doubted it. They brought us the next day a paper from one of the officers who had been employed in the police in Yeddo. It was stated in this paper, that the city of Yeddo has, in its principal streets, two hundred and eighty thousand houses, and in each of them there live from thirty to forty people. Suppose there were only thirty, the number of inhabitants must amount to eight millions four hundred thousand; add to this the inhabitants of the small houses and huts, those who live in the open air, the imperial guard, the guard of the princes in the capital, their attendants, &c. the number of the inhabitants must exceed ten millions. As a confirmation of their assertions, the Japanese mentioned, besides, that Yeddo alone contained 36,000 blind people. To this we could say nothing, and neither allow the Japanese to be right, nor contradict their assertions.

These data may, however, be very true; for according to the plan of the city, and considering the narrowness of the streets, it may fully contain ten millions of people: as the greatest diameter is more than eight Japanese *Ri*, or 32 to 36 wersts. p. 26.

The military profession is hereditary: the imperial soldiers possess many exclusive and important privileges. Their military dress for action is a suit of complete armour, as far as the knees, but they do not carry shields. The arms of the infantry consist of a sabre of unequalled temper, a dagger, a musket, and occasionally, a pike. In the military art they are, probably, three centuries behind the Europeans.

Nations which Pay Tribute to the Japanese and Colonies.

The sway of the Japanese over their colonies and tributary states is represented as being exercised with a spirit of equal wisdom and moderation. The conquered people are allowed the benefit of their own laws, which are administered by their magistrates; the Japanese having fortresses in the different islands, and exacting the payment of tribute money.

From this imperfect sketch of the national character and institutions of the Japanese, it will, at once, appear how admirable are the moral elements, of which the mind of this great people is compounded, and on what a towering elevation they would stand amongst the nations of the earth, did they enjoy the privilege of a free communication with the more enlightened countries of Europe. From its happy geographical position, the fertility of its soil, and the number, activity, and commercial spirit of its inhabitants, Japan would, in such an event, become the entrepot of the direct commerce between South America and Asia, and largely participate in the trade between Europe and South America.

The style of the Recollections as well as that of the "Narrative," to which we have before adverted, is simple and unartificial, and such as would alone induce a conviction of their authenticity, excepting in the undiscerning minds of the conductors of certain Reviews.—One or two remarks will finally decide this question. Had Captain Golownin himself compiled his "Narrative" as a species of statistical romance, like De For's History of the Island of Formosa; or had it been a forgery attempted in Europe for the base purposes of gain, how does it happen that his representations of Japan and its inhabitants, are corroborated by the concurring testimony of all writers (and there have been many of various nations) who have, during a period of 300 years, employed their pens upon the subject; without any connection with each other, and of the genuineness of whose relation no doubt has ever been entertained: or would, we ask, any one but a delirious impostor have presumed to state circumstances involving the public acts of the Russian government, and consequently the most easy and certain of detection, had those circumstances never actually taken place? Having thus noticed the hypercriticism to which Captain Golownin's former volumes have given rise, we shall close our observations on the present ingenious and entertaining Work, by earnestly recommending it to the attention and perusal of our readers.

TO CORRESPONDENTS.

It is but justice to our Correspondents to correct an error into which Lieutenant McNAGHTEN has been led in his reply to them, from referring to the day of publication, and not to the dates of the Letters of A TRAVELLER and A STAFF OFFICER. The TRAVELLER'S Letter had reached us before Lieutenant McNAGHTEN'S reply to the Staff Officers appeared in our Journal of the 26th ultimo, but was kept back from a press of other matter, and thus chanced to appear the last of all.

The Letter of AN ADJUTANT OF BENGAL CAVALRY, on the Moral and Military Character of the Indian Sepoy shall appear.

A Letter signed A FRIEND TO THE ANGLO ASIATICS on the formation of certain Institutions in India, is approved of.

A Letter on the VOTE OF THANKS TO THE INDIAN ARMY, signed S—, will also be printed.

A Letter on the SOSTENENTE will appear speedily.

Literary and Scientific Intelligence.

I. NATURAL PHILOSOPHY.

ASTRONOMY.

La Place's Results respecting the Form and Structure of the Earth.—La Place has given the following very interesting results, as deduced from analysis, and from the experiments made with the pendulum in both hemispheres.

1. That the density of the strata of the terrestrial spheroid increases from the surface to the centre. 2. That the strata are very nearly regularly disposed around the centre of gravity of the earth. 3. That the surface of this spheroid, of which the sea covers a part, has a figure a little different from what it would assume in virtue of the laws of equilibrium, if it became fluid. 4. That the depth of the sea is a small fraction of the difference of the two axes of the earth. 5. That the irregularities of the earth, and the causes which disturb its surface, have very little depth. 6. That the whole earth has been originally fluid.

"These results (says La Place) of analysis and experiment, ought, in my opinion, to be placed among the small number of truths which Geology presents."

Sir Wm. Herschel's Researches respecting the Distance of the Fixed Stars.—In a paper published in the *Phil. Trans.* 1818, Part II, this celebrated astronomer endeavours, by computations founded on the known power of his telescopes, and the probable assumption of some certain average magnitude of the fixed stars, to arrive at definite conclusions on the great problem of the arrangement of celestial objects in space. Granting that, one with another, the faintest stars are the farthest distant, their light then becomes, in some rough way, a measure of their distance, which may be compared by a series of equalisations between large and small stars, made with similar telescopes, but of different apertures. He thus concludes, that a single star of the first magnitude would be just lost to the naked eye if removed to 12 times its distance, and to the most powerful telescope hitherto constructed, if to 2300 times. Yet such an instrument still continues to shew stars in the Milky Way, at the utmost limits of their visibility. This wonderful sidereal stratum is therefore fathomless alike by our eyes and by our telescopes.

But though the light of single stars may no longer affect our organs, the united lustre of sidereal systems may reach us from a still greater profundity in space. When the stars of clusters can yet be seen in telescopes, their distances may be estimated by the aperture which just resolves them, and in this way we have the distances of 47 clusters actually estimated in this paper. These, in turn, become connecting links with such ambiguous objects as our telescopes will not resolve. It is first proved by many observations, that resolvable clusters seen with inferior telescopes, actually put on similar appearances, and the similarity of nature once established, we may compare their distances with those of the former kind, by the same principles as those with the nearest fixed star. The utmost limits of human vision seem attained when such objects are lost to the sight; and this we are led to suppose must take place about the 35000th order of distances.

OPTICS.

Singular Optical Illusion seen in Bassin's Bay.—Among the remarkable illusions which arise from local variations in the density, and consequently in the refractive power of the atmosphere, we are not acquainted with any more interesting than one which was more than once observed by the officers on the expedition to Bassin's Bay. Upon looking at the summits of distant mountains, they were surprised to observe a huge opening in them, as if they had been perforated, or an arch thrown from one to another. This effect arose from the apparent junction of the tops of the mountains, produced by a variation of density in some part of the atmosphere between the observer and the tops of the mountains, but which did not exist at a lower level, so as to affect the inferior parts of the mountains.

Dr. Watt's Theory of the Rainbow.—We have no doubt that our readers will partake in the surprise which we ourselves experience, at seeing it gravely maintained that the Rainbow is not produced from rain. The learned Dr. Watt of Glasgow has maintained this hypothesis in the *Annals of Philosophy* for February 1819, p. 131, and has gone so far as to say that he considers his "hypothesis in a great measure established." He supposes that the rainbow is nothing more than a spectrum produced by the refraction of the edge of a cloud, and that the rainbow must always disappear when the sun emerges from behind this magical prism.

The following are a few out of many reasons why such a mode of formation is absolutely impossible:

1. A cloud with two perfect surfaces, capable of producing such a distinct spectrum, is a thing quite inconceivable.

2. In order that the spectrum may be always concave downwards like the rainbow, the cloud must always take care and place its refracting angle mathematically in one position.

3. In order that the bow may appear both on the right and left of the observer, as it does in nature, the prismatic cloud must have the common section of its two refracting planes, of a circular form.

We cannot allow ourselves to offer any defence of a theory so palpably true as the ordinary theory of the rainbow. If any doubt were attached to it, it must have been completely removed by the discovery made by Dr. Brewster, (*Theories on Philosophical Instruments*, p. 350), that the light of the rainbow is actually polarised light, in consequence of its having suffered reflection nearly at the polarising angle from the posterior surface of the drops of water. Such a change upon the light could not possibly have been effected by passing through any prism whatever. This indeed is an *experimentum crucis*, which demonstrates Newton's theory to be correct, and Dr. Watt's erroneous.

ELECTRICITY.

Electrical Fish.—A fish resembling the *Silurus electricus* was brought on board the Congo from Embomma, upon the river Zaire. According to the account of the natives, it communicated a severe shock to the hand and arm, if any person touched it when alive, or, as they described the effect, "it shot through all the arm." Mr. McKerrow describes it as three feet six inches long; head large, broad and compressed; mouth furnished with six long cirrhi, four on the under, and two on the upper jaw; mandibles dentated; tongue short and eyes small; body without scales; pectoral fins near the branchial openings, the ventral fins near the anus; dorsal fins soft and placed near the tail; upper parts of the body thickly spotted black, and the under of a yellowish white skin exceedingly thick. *Narrative of an Expedition, &c.* under Captain Tuckey, p. 356.

II. CHEMISTRY.

Production of Light, by breaking Glass Balls filled with Oxygen.—A very curious and important experiment has recently been made by M. Biot. It consists in breaking, by means of a suitable apparatus, a ball of glass filled with oxygen gas, and placed in the receiver of an air-pump, in which as perfect a vacuum as possible has been formed. The effect of this is to produce a brilliant light in a dark apartment.

III. NATURAL HISTORY.

MINERALOGY.

Submarine Volcano near Shetland.—The late Rev. George Low, author of the *Fauna Orcadensis*, in a tour through the Shetland Islands during the summer of 1774 (the MS. of which is in the possession of Dr. Hibbert,) collected some curious information from the Island of Fetlar, which appears to have fixed the site of a submarine volcano at no great distance from the British Isles. The late Andrew Bruce, Esq. of Urie, in a statistical account of the island, communicated to Mr. Low, says, "In 1768, we had the visible signs of a submarine shock, which threw ashore vast quantities of shell-fish of different kinds, and of all sizes, with conger eels, and other sorts of fish, but all dead; at the same time, the sea, for several miles round, was of a dark muddy colour for several days after."

In relation to the same event, the late Mr. Gordon, then minister of the Island of Fetlar, reports: "Some years ago, there was a marine eruption, or some such phenomenon, which we could not account for in any other way. There was a vast quantity of sea fish driven ashore of various kinds, and many that had never made their appearance on this coast before. Conger eels above seven feet long, but all dead. The water in the bays was so black and muddy for eight days after, that when our fishermen were hauling haddocks, or any small fish, they could never discern the fish until hauled out of the water."

ZOOLOGY.

Comparison of the Skull of an ancient Greek and of a Botocudo Canibal.—It is well known, that the celebrated Professor of Natural History at Göttingen, Blumenbach, has employed many years in investigating and describing the skulls of the different races of the human species, and also of the various characteristic tribes of these races. It has always been a principal object with that distinguished naturalist, to obtain skulls of the different nations of antiquity, and he has succeeded in collecting those of Egyptians, Romans, and Germans. Very lately he has been able to add to his very extensive and valuable collection of crania one of an ancient Greek, presented to him by the Prince Royal of Bavaria. It was taken from a grave in Greece Magna. It is particularly distinguished by the gentle and elegant curve of the brow, and the perpendicular position of the upper jaw. It may be considered as the prototype of the antique Grecian profile, and serves to shew that the profiles in Grecian works of art, were not, as De Pauw and others say, merely "un style de dessin, adopté dans quelques écoles."

Prince Maximilian of Mexico, one of the most distinguished amongst the royal cultivators of natural history on the continent, and who, with a rare zeal and intrepidity, exposed himself to all the dangers and difficulties of a journey through the wilds of Brazil, has brought with him to Europe a collection of the crania of the different savage tribes he met with. Very lately he presented to Blumenbach the skull of one of the Botocudos, a tribe of cannibals who inhabit remote districts in the vast country of Brazil. We can scarcely find words to express the very striking contrast of the features of this cannibal cranium, when compared with that of the noble Hellenian already mentioned. The one is the most perfect and beautiful in form ever met with, while the other in its general aspect more nearly resembles the orang outang, than even the most characteristic skull of the Negro race.

Structure of the Cuticle.—That admirable man and excellent anatomist, the late Dr. Gordon, maintained, from actual investigation, that the cuticle or dead-skin of the human body was without pores, and had neither a true laminated nor fibrous structure. The celebrated Professor Rudolphi of Berlin, in a memoir in the Transactions of the Berlin Academy for 1814-1815, entitled "*Über Hornbildung*," has confirmed these observations.

The Colour of the different Races of Man situated in the Cuticle.—The skin of animals is composed of two parts,—the cuticle or scarf skin, and cutis vera or true skin; and, between these, many anatomists place a third layer, named rete mucosum. This rete mucosum, is supposed by some to be the seat of the colour of the skin, and that, therefore, it is reddish in the European and black in the Negro, and so forth. The late Dr. Gordon denied its existence in the European race of the human species, but believed he had found it in the Negro. This opinion is adopted by Lawrence, in his late interesting work on the Natural History of Man. Rudolphi has lately re-examined the human skin, and declares that there is no such part as the rete mucosum, and that the colour of the different races of the human species is seated in the cuticle.

Respiration of Frogs.—It appears, from a series of curious experiments performed by M. Edwards, and detailed in the *Annales de Chimie et Physique* for January 1819, that frogs, toads, and lizards, are preserved alive and in health under water for weeks, by means of the air contained in the water, which they abstract, not by the lungs but by the skin.

Live Lizard imbedded in a Seam of Coal.—In the month of August 1818, when the workmen were sinking a new pit at Mr. Fenton's colliery near Wakefield, and had passed through measures of stone, grey bluish, blue stone, and some thin beds of coal, to the depth of 150 yards, they came to the seam of coal, about four feet thick, which they proposed to work. After excavating about three inches of it, one of the miners struck his pick into a crevice, and, having shattered the coal around into small pieces, he discovered a lizard about five inches long. It continued very brisk and lively for about ten minutes, and then drooped and died. See *Philosophical Magazine*, vol. lii. p. 377.

IV. GENERAL SCIENCE.

Expedition overland from Hudson's Bay to the shores of the Arctic Ocean.—It is known that Government has fitted out two new expeditions for the arctic regions: the one intended for Baffin's Bay, and the other for Hudson's Bay, and the coast of the Arctic Ocean. The Baffin's Bay expedition is to endeavour to complete the survey left unfinished by Captain Ross, and is therefore almost entirely of a maritime nature; while the other is principally a journey on the continent of America. The party to be employed in the American expedition, consists of Lieutenant Franklin, the commanding officer, Dr. Richardson, of Leith, medical officer and naturalist, two Midshipmen, and two servants: in all six Europeans. They sailed about the 20th of May in one of the Hudson Bay ships, and expect to reach York Factory about the middle of August. On the intelligence they receive at that place, their future proceedings will to some measure depend; and much will no doubt be left to the discretion of the commanding officer. We do not know what his precise instructions are; but we understand that the primary object is to ascertain the north-eastern boundary of the American continent, and from thence to survey the coast to the westward as far as practicable. In prosecution of this object, we believe it is intended that the expedition should endeavour to trace the Copper-mine River to its termination in the Ocean. The prevalent opinion with geographers in England at present is, that this river, instead of running nearly due north, as described by Hearne, trends away to the eastward, and terminates in Repulse Bay. Among the arguments brought forward in support of this notion, it is said, that Hearne entirely neglected to take the variation into account; and Lieutenant Franklin is in possession of a chart drawn by Matonabbee, in which the river at its rising has the direction given to it in Hearne's chart; but afterwards it runs nearly east, and terminates on the eastern coast, nearly in the situation given to Repulse Bay in the English charts. Matonabbee's chart is correct in the position of places, and direction of rivers known to the Hudson Bay settlers. There is a probability, then, by tracing this river to its termination, that the expedition may reach near to the north-eastern point of the continent.

The expedition expect to embark in canoes, eight or ten days after their arrival at York Factory, and proceed by Cumberland House, Isle à la Crosse, &c. marked in Arrowsmith's map, to Fort Chepewyan, or, if possible, by Slave Lake. If the autumn is favourable, the party hope to reach Fort Chepewyan before the commencement of winter. The distance of this place from York Factory, by the circuitous route the expedition will be obliged to take, will be about 1400 miles. If circumstances permit, it is intended, after the party become a little inured to the severity of the winter, to endeavour to reach Big Slave Fort, (the most advanced European settlement), before spring. At this place, a party of about twenty Indians, with their wives, will be engaged; and from thence the expedition may be said to commence. They will then be left to their own resources, in a country unknown to Europeans; for Hearne's description has added little to the imperfect accounts he collected from the natives.

Whirlpools, and Subterraneous Passage of the Congo.—In examining the quantity of water which passed over a contracted part of the river Congo, Captain Tuckey, Professor Smith and Mr. Fitzmaurice were all surprised at its smallness, compared with the immense volume which rolled into the ocean through its deep funnel-shaped mouth; the more so, as they had previously ascertained, in their progress upwards, that not a single tributary stream of water, sufficient to turn a mill, fell into the river on either side, between the mouth and the cataract; and they concluded, that the only satisfactory explanation of this remarkable difference in the quantity, was the supposition that a very considerable mass of water must find its way through subterraneous passages under the slate-rocks, disappearing probably where the river first enters these schistose mountains, and forms the narrows, and rising again a little below their termination, at Point Soudé, where the channel begins to widen; and from whence to Lemboe Point, a succession of tornados and whirlpools were observed to disturb the regular current of the river. These whirlpools are described both by Captain Tuckey and Mr. Fitzmaurice to be so violent and dangerous, that no vessel could attempt to approach them. Even the eddies occasioned by them were so turbulent, as frequently to resist both sails and oars, turning and twisting the boats round in every direction; and it was with the utmost difficulty that they were extricated without being swamped.

Whiteness and luminosity of the Sea.—After passing Cape Palmas, and entering the Gulf of Guinea, Captain Tuckey observed that the sea had a whitish colour, which gradually increased till they made Prince's Island. The luminosity of the sea also increased, so that at night the ship seemed to be sailing on a sea of milk. In order to discover the cause of these appearances, a bag of honting, having its mouth extended by a hoop, was kept overboard, and by means of it they collected vast numbers of animals of various kinds, particularly pellucid scallopæ, with innumerable little crustaceans animals of the scyllarus genus attached to them, to which Captain Tuckey principally attributed the whitish colour of the water. Thirteen species of cancer were caught, not above one-fourth of an inch long, eight having the shape of crabs, and five that of shrimps. Among these, the Cancer fulgens was conspicuous. When another species was examined by the microscope in candle light, the luminous property was observed to reside in the brain, which, when the animal was at rest, resembled a most brilliant amethyst, about the size of a large pin's head; and from this there darted, when the animal moved, flashes of a brilliant silvery light. —See Captain Tuckey's Narrative, p. 49.

Preservation of Fruits by the Carbonic Acid.—M. Dumont, in a letter to Count Chaptal, has announced the important practical discovery, that fruits may be preserved by means of carbonic acid gas. Cherries, grapes, pears, apples and chestnuts, were placed in glass vessels, filled with carbonic acid gas, obtained from carbonate of lime by sulphuric acid. Neither the colour nor the taste of the cherries were altered at the end of fifteen days, and at the end of six weeks, they were in the same state as if they had been preserved in brandy. The details of these experiments will be found in the *Ann. de Chim. et de Phys.* Jan. 1819.

Raiz Preta, or Black Emetic Root.—The natives in the interior of Brazil use an infusion of the root of a plant, somewhat resembling ipécacuanha, with great effect in the cure of dropsy, and in destroying the dangerous effects produced by the poison of serpents. When taken, it produces vomiting, and afterwards acts most powerfully on the urinary organs, occasioning for five or six days an extraordinary flow of urine. One dose is said to be sufficient for the cure of the bite of serpents, but many are required for the removal of dropsy.

Scientific Travellers in Brazil.—It is probably not generally known that at this moment scientific travellers are traversing all parts of Brazil, under the protection of the Portuguese, and at the expense of the Austrian, Bavarian and Tuscan Governments. On the part of Austria, the following are employed: 1. Professor Mikan for natural history in general, and botany in particular; 2. Dr. Pohl as mineralogist; 3. M. Natterer for zoology; 4. M. Schott as gardener; 5. M. Socher as huntsman; 6. M. Ruder as landscape painter; 7. M. Buchberger as botanical painter, and M. Frick as natural history painter. On the part of Bavaria, 1. Dr. Spix as zoologist, and 2. Professor Martins as botanist. On the part of the Grand Duke of Tuscany, Dr. Radi as naturalist.

Sea Serpent.

Some Observations on the Sea Serpent. By W. D. Peck, A. M., and F. A. A., Professor of Natural History in Harvard College. From the American Philosophical Transactions.

(From the First Number of the Edinburgh Philosophical Journal, published in June 1819.)

The appearance in this vicinity the last summer of an enormous animal of the serpentine order, is a fact so remarkable here, and so interesting to naturalists every where, that the Academy at their last meeting, were of opinion that some notice of it should appear in their next publication, and appointed me to consider the evidence of the fact. I beg leave to offer the following as the result of my inquiries.

The writers on natural history for more than 2,000 years have mentioned Sea-Serpents. It may not be entirely foreign to the purpose to notice what they have left us on this obscure subject. Aristotle, the father of Zoology, observes in Lib. II. Chap. XIV. "that there are serpents in the sea as well as on the land, and in fresh waters. That some of those in the sea, in form resemble those of the land, except that the head has a greater resemblance to the conger."

The *Muraena colubrina* found in Amboina, *M. Ophis*, *Serpens* and *Myrus*, in Europe; and *Mur. Echidna* in the Pacific Ocean, resemble serpents in their form, but are furnished with fins.

The *Hydrus* and *Chersydrus* of Pliny, may be referred to *Coluber Natix* of Linnæus, which frequents fresh waters, and very much resembles our own water adder, which is found in similar situations. The notion of the enormous serpents brought by Virgil from Tenedos, was probably suggested to the Greek poets, from whom he took the hint, by the appearance and habits of the same *Coluber Natix*, enlarged and made more terrible by poetic fancy.

The story mentioned by Pliny, Lib. VIII. Chap. 14, of an enormous river serpent in Africa, was probably a fiction or great exaggeration, and was more than two centuries old when he copied it from Livy or Valerius Maximus.

It does not appear from any thing in the writings of the ancient naturalists, that what is now called Sea-Serpent, was known in their times. It is of modern discovery, and was, I believe, first mentioned by Olaus Magnus, in his *Historia de Gentibus Septentrionalibus*. He seems to have been as credulous as Pliny, and the figure which he gives of this serpent, as well as of other marine animals, was probably sketched from the extravagant relations of sea-faring people.

He represents the serpent he speaks of, as several hundred feet in length, and in the act of taking sailors from the deck of a ship. The work of Magnus was published at Rome in 1555. In 1558, Gesner published the IVth book of his *History of Animals*. In this he copies the figure of Magnus with a short description, as he found it, without comment. Ruysch, in his *Theatrum Animalium*, published in 1718, copies the figure of Magnus, omitting the ship.

Finally, the Rt. Rev. Eric Pontoppidan, bishop of Bergen, in his *Natural History of Norway*, published in 1752 and 1753, gives, on the authority of a naval officer in the Danish service, a more rational and credible account of it. The figure which he gives seems to have been made from the description of Captain De Ferry, the officer above alluded to. In this figure, the head and jugular region are raised out of the water; a little below the head is a mane which seems to be inserted all round the back part of the neck. The appearance of this mane was most probably an optical deception, and was nothing more than the water displaced by the neck, in the progress of the animal through it, returning to its level. It had probably no mane. But of the existence of the animal, the testimony* presented by the Rev. Bishop is sufficiently conclusive.

The testimony is ample of the existence of such a serpent, in the portion of the Atlantic which washes our shores.

It appears by papers sent to the Academy in the year 1810, that this serpent was first seen in Penobscot Bay about the year 1779, by Mr. Stephen Tuckey: he compared it to an unwrought spar (meaning probably one of spruce) which the scaly surface and dark colour of the animal would very much resemble; he thought it fifty or sixty feet in length.

* A letter of Captain De Ferry, and the declaration on oath of two of his crew who were with him when he saw and shot at it.

The next notice is from Captain Eleazer Crabtree, who saw it in the same bay about the year 1785: he estimated its length at sixty feet, and its diameter he thought equal to that of a barrel, which is about 22 inches.

In the publication of the Linnæan Society, to whose committee we are indebted for collecting the most recent testimonies on this subject, is a letter from the Reverend Mr. Jenks of Bath, who states that in conversation with the Reverend Mr. Cummings, the latter gentleman observed, that "this animal had been seen occasionally in Penobscot Bay within thirty years; supposed to be above sixty feet in length, and of the size of the sloop's mast. That it had been seen by the inhabitants of Fox and Long Islands, and one of them, a Mr. Crocket, had seen two of them together about the year 1787."

These are the earliest notices I can find of this animal on our shores; and their truth is rendered indubitable by the evidence lately brought together by the committee of the Linnæan Society, of men of fair and unblemished character in Gloucester; of Captain Toppan and two of his people, of the schooner *Laura* of Portsmouth, and Captain Elkanah Finney of Plymouth.

The account of it by Lonson Nash, Esq. justice of the peace in Gloucester, from his own observation, is perfectly free from prejudice, and as clear and satisfactory as can be expected of an object at the distance of two hundred and fifty yards.

Mr. Nash saw it with a perspective glass, whose field of view at that distance he found about forty-five feet in diameter, and the length of the visible part of the animal was greater than could be included in that field of view.

I do not perceive by the accounts that any person has seen its whole length. Mr. Nash estimates it at seventy feet at least, and thinks it may be even an hundred, and its diameter equal to that of a half-barrel, about sixteen or seventeen inches. Its colour appeared to him very dark, almost black. It moved by vertical undulations of the body, and with great velocity, i. e. at the rate of a mile in four minutes.

In addition to Mr. Nash's account, eight persons, citizens of Gloucester, Captain Toppan and two of his people, on their voyage to Boston, have furnished their testimony on oath, of the presence of this animal in the harbour of Gloucester and its vicinity, from the 10th to the 28th inclusive, of August last, and it appears by the affidavit of Capt. Finney, that it was seen by him in June 1815, in a cove on the Plymouth shore.

The accounts of all these persons are very consistent; to the greater part it appeared to be straight, or without gibbosities or protuberances on the back; one person thought it had protuberances, but it seems probable that the upper flexures of its undulations occasioned this opinion.

Its velocity is variously estimated; by some it was thought to move a mile in one minute, by others in three, four, or five minutes. It has great lateral flexibility, as is shown by its turning short, and moving in an exactly contrary direction, advancing the head in a line parallel with the body; hence its undulations, when under water and equally surrounded by the medium, may be either vertical or horizontal at the will of the animal. The judgment of its velocity, however, without knowing its precise distance, and without instruments to observe it, is extremely liable to err.

In the testimonies above referred to, the imagination seems to have had no influence, and we certainly know from them that the existence of the animal to which they relate is indisputable; we know that it moves by vertical undulations, at least while near the surface of the sea; that it is laterally as flexible as other serpents; and that its motion, at times, is very swift; but our knowledge is circumscribed by these limits. It is to be hoped, that if it again visits our shores, some successful means may be devised of taking it and presenting an opportunity of completing our knowledge of so interesting a link in the chain of animated beings.

It has been seen in Long Island Sound, progressing southward; it seems from this circumstance to be migratory, like the *Coluber Natix* in Hungary, and may pass the winter season in Mexico or South America.

* A letter from this gentleman was forwarded to the Academy about the year 1806, giving a particular account of the animal, as he saw it, at a small distance; but this letter is lost or mislaid, as are the testimony on oath, of Captain Crabtree, and a letter from the late Captain George Little.

Persons, Story, Allen, Ellery, Foster, Gaffney, Mansfield, Johnson, and Pearson.

Lord Byron's Hebrew Melodies.

SONG OF SAUL BEFORE HIS LAST BATTLE.

I.

Warriors and Chiefs! should the shaft or the sword
Pierce me in leading the host of the Lord,
Heed not the corse, though a king's, in your path:
Bury your steel in the bosoms of Gath!

II.

Thou who art bearing my buckler and bow,
Should the soldiers of Saul look away from the foe,
Stretch me that moment in blood at thy feet!
Mine be the doom which they dared not to meet.

III.

Farewell to others, but never we part,
Heir to my royalty, son of my heart!
Bright is the diadem, boundless the away,
Or kingly the death, which awaits us to-day!

WHEN COLDNESS WRAPS THIS SUFFERING CLAY.

I.

When coldness wraps this suffering clay,
Ah, whither strays the immortal mind?
It cannot die, it cannot stay,
But leaves its darken'd dust behind.
Then, unembodied, doth it trace
By steps each planet's heavenly way?
Or fill at once the realms of space,
A thing of eyes, that all survey?

II.

Eternal, boundless, undecay'd,
A thought unseen, but seeing all,
All, all in earth, or skies display'd,
Shall it survey, shall it recal;
Each fainter trace that memory holds
So darkly of departed years,
In one broad glance the soul beholds,
And all, that was, at once appears.

III.

Before Creation peopled earth,
Its eye shall roll through chaos back;
And where the furthest heaven had birth,
The spirit trace its rising track.
And where the future mars or makes,
Its glance dilate o'er all to be,
While sun is quench'd or system breaks,
Fix'd in its own eternity.

IV.

Above or Love, Hope, Hate, or Fear,
It lives all passionless and pure:
An age shall fleet like earthly year;
Its years as moments shall endure.
Away, away, without a wing,
O'er all, through all, its thought shall fly;
A nameless and eternal thing,
Forgetting what it was to die.

WERE MY BOSOM AS FALSE AS THOU DEEMST IT TO BE.

I.

Were my bosom as false as thou deem'st it to be,
I need not have wandered from far Galilee;
It was but abjuring my creed to efface
The curse which, thou say'st, is the crime of my race.

II.

If the had never triumph, then God is with thee!
If the slave only sin, thou art spotless and free!
If the Exile on earth is an Outcast on high,
Live on in thy faith, but in mine I will die.

III.

I have lost for that faith more than thou canst bestow,
As the God who permits thee to prosper doth know;
In his hand is my heart and my hope—and in thine
The land and the life which for him I resign.

VISION OF BELSHAZZAR.

I.

The King was on his throne,
The Satraps throng'd the hall;
A thousand bright lamps shone
O'er that high festival.
A thousand cups of gold,
In Judah deem'd divine—
Jehovah's vessels hold
The godless Heathen's wine!

II.

In that same hour and hall,
The fingers of a hand
Came forth against the wall,
And wrote as it on sand:
The fingers of a man;—
A solitary hand
Along the letters ran,
And traced them like a wand.

III.

The monarch saw, and shook,
And bade no more rejoice;
All bloodless wax'd his look,
And tremulous his voice.
"Let the men of lore appear,
"The wisest of the earth,
"And expound the words of fear,
"Which mar our royal mirth."

IV.

Chaldea's seers are good,
But here they have no skill;
And the unknown letters stood
Untold and awful still.
And Babel's men of age
Are wise and deep in lore;
But now they were not sage,
They saw—but knew no more.

V.

A captive in the land,
A stranger and a youth,
He heard the king's command,
He saw that writing's truth.
The lamps around were bright,
The prophecy in view;
He read it on that night,—
The morrow proved it true.

VI.

"Belshazzar's grave is made,
"His kingdom pass'd away,
"He in the balance weigh'd,
"Is light and worthless clay,
"The shroud, his robe of state,
"His canopy, the stone;
"The Medes is at his gate!
"The Persian on his throne!"

BY THE RIVERS OF BABYLON WE SAT DOWN AND WEPT.

I.

We sat down and wept by the waters
Of Babel, and thought of the day
When our foe, in the huc of his slaughters,
Made Salem's high places his prey;
And ye, oh her desolate daughters!
Were scattered all weeping away.

II.

While sadly we gazed on the river
Which roll'd on in freedom below,
They demanded the song; but, oh never
That triumph the stranger shall know!
May this right hand be withered for ever,
Ere it string our high harp for the foe!

III.

On the willow that harp is suspended,
Oh! Salem; its sound should be free;
And the hour when thy glories were ended
But left me that token of thee:
And ne'er shall its soft tones be blended,
With the voice of the spoiler by me!

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